

H3C S5560S-SI Layer 3 Gigabit Access Switch Series

Overview

H3C S5560S-SI is the latest development of Gigabit Layer 3 access switch. It's the second generation intelligent managed switches designed for networks requiring high performance, high port density, high uplink bandwidth and easy to use.

H3C S5560S-SI series switch offers Gigabit connectivity with 10/100/1000 autosensing ports and 1G or 10G optical ports.

H3C S5560S-SI series switch includes four models as follows:

- S5560S-28P-SI: 24*10/100/1000TX Ethernet ports + 4*SFP ports;
- S5560S-52P-SI: 48*10/100/1000TX Ethernet ports + 4*SFP ports;
- S5560S-28S-SI: 24*10/100/1000TX Ethernet ports + 4*SFP+ ports;
- S5560S-52S-SI: 48*10/100/1000TX Ethernet ports + 4*SFP+ ports;



Features and benefits

High scalability

H3C S5560S-SI switch series offers fixed 4-port 10GE or 4-port GE uplink ports which offers high cost effective GE/10GE uplink with high density Gigabit access, protecting customer's investment.

H3C S5560S-SI switch series supports Intelligent Resilient Framework 2 (IRF2), which can stack 9 models as one logical device, offering high scalability and flexibility.

IPv6 features

The S5560S-SI switch series comes with IPv4/IPv6 dual-stack platform which provides hardware-based IPv4/IPv6 wire-speed forwarding and IPv4/IPv6 Layer 3 routing protocols. It also supports IPv6-based ACL, QOS, multicasting and NMS that can help the network upgrade from IPv4 to IPv6.

Intelligent Resilient Framework 2 (IRF2)

H3C S5560S-SI switch series is pre-built with Intelligent Resilient Framework 2 (IRF2). IRF2 provides the following benefits:

- High scalability: With IRF2, plug-n-play device aggregation can be achieved by adding one or more switches into the IRF2

stack and enabling IRF2 stacking on the new device. New devices can be managed with a single IP, and upgraded at the same time to reduce network expansion cost.

- High reliability: The IRF2 patented 1: N backup technology allows each slave device in the IRF2 stack to serve as the backup of the master, creating control and data link redundancy, as well as uninterrupted layer-3 forwarding. This improves the reliability, avoids unplanned business downtime and serves to improve overall performance. When the master device fails, traffic remains uninterrupted.
- Load balancing: IRF2 supports cross-device link aggregation, upstream and downstream can be connected to more than one physical link, which creates another layer of network redundancy and boosts the network resource utilization.
- Availability: H3C Implements IRF2 through standard Gigabit Ethernet (1GE) ports or Ten Gigabit Ethernet (10GE) ports which allocates bandwidth for business and application access and reasonably splits local traffic and upstream traffic. IRF2 rules not only able to obey within and across the rack, but also across the LAN.

Comprehensive security control policies

- H3C S5560S-SI switch series supports innovative single-port multi-authentication function, the access authentication modes supported by different clients are different. For example, some clients can only perform MAC addresses Authentication (such as the printer terminal), and some user host for 802.1X authentication, and some user hosts only want to access through the Web portal authentication. In order to flexibly adapt to the multi-authentication requirements of the network environment, the S5560S-SI switch series support single-port multi-authentication unified deployment.
- ARP attack and ARP virus are major threats to LAN security, so the S5560S-SI switch series comes with diverse ARP protection functions such as ARP Detection to challenge the legitimacy of client, validate the ARP packets, and set a speed limit for ARP to prevent ARP swarm attacks from targeting CPU.
- H3C S5560S-SI switch series support EAD (End User Admission Domination) function. Once working with the iMC (intelligent Management Centre) system, EAD integrates terminal security policies, such as anti-virus and patch update, into network access control and access right control policies to form a cooperative security system. By checking, isolating, updating, managing, and monitoring access terminals, EAD changes passive, single point network protection to active, comprehensive network protection, and changes separate management to centralized management, enhancing the network capability for preventing viruses, worms, and new threats.

Abundant QoS policies

- The S5560S-SI switch series supports packet filtering at Layer 2 through Layer 4, and traffic classification based on source MAC addresses, destination MAC addresses, source IP addresses, destination IP addresses, TCP/UDP port numbers, protocol types, and VLANs. It supports flexible queue scheduling algorithms based on ports and queues, including strict priority (SP), weighted round Robin (WRR) and SP+WRR. The S5560S-SI switch series enables committed access rate (CAR) with the minimum granularity of 8 kbps. It supports port mirroring in the outbound and inbound directions, to monitor the packets on the specific ports, and to mirror the packets to the monitor port for network detection and troubleshooting.

Excellent manageability

- The H3C S5560S-SI switch series makes switch management with ease with the support of SNMPv1/v2/v3, which can be managed by NM platforms, such as Open View and iMC. With CLI and Telnet switch management is made easier. And with SSH 2.0 encryption, switch management security is enhanced.

High Availability

The switch offers the following hardware high availability features:

- Automatically monitors power module and fan tray status, and generates alarms when a power or temperature event occurs.
- Adjusts fan speed based on the change in temperature.
- Self-protection mechanisms that protect power modules against overcurrent, overvoltage, and overtemperature conditions.
- In addition to hardware redundancy, the switch provides a variety of node and link redundancy and protection mechanisms, including:
 - Ethernet link aggregation, including LACP.
 - Spanning tree protocols, including STP, RSTP and MSTP.
 - IRF 2 in daisy or ring topology in conjunction with multichassis link aggregation

Specifications

Item	S5560S-28P-SI	S5560S-52P-SI	S5560S-28S-SI	S5560S-52S-SI
Switching capacity	56Gbps	104Gbps	128Gbps	176Gbps
Packet forwarding rate	42Mpps	78Mpps	96Mpps	132Mpps
Dimensions (H x W x D)	43.6 x 440 x 160 mm	43.6 x 440 x 230 mm	43.6 x 440 x 160 mm	43.6 x 440 x 230 mm
Weight	< 2.5 kg	< 3.5 kg	< 2.5 kg	< 3.5 kg
Management Ethernet ports	1 console port			
Service ports	24 x 10/100/1000Base-T autosensing Ethernet ports 4 x SFP ports	48 x 10/100/1000Base-T autosensing Ethernet ports 4 x SFP ports	24 x 10/100/1000Base-T autosensing Ethernet ports 4 x 10G SFP+ ports	48x 10/100/1000Base-T autosensing Ethernet ports 4 x 10G SFP+ ports
Power consumption	MIN: AC 9W MAX: AC 23W	MIN: AC 18W MAX: AC 41W	MIN: AC 10W MAX: AC 24W	MIN: AC 19W MAX: AC 44W
Operating temperature	0°C to 45°C (32°F to 113°F)			
Operating humidity	10% RH to 90% RH, non-condensing			
Link aggregation	1G/10G port aggregation Static aggregation Dynamic aggregation Multichassis link aggregation			
Jumbo frame	Supported			
MAC address table	Blackhole MAC address MAC learning limit			

Item	S5560S-28P-SI	S5560S-52P-SI	S5560S-28S-SI	S5560S-52S-SI
Flow control	802.3x flow control and half-duplex backpressure			
VLAN	Port-based VLAN QinQ Voice VLAN MAC VLAN			
ARP	ARP Detection ARP speed limit			
ND	Supported			
VLAN virtual port	Supported			
DHCP	DHCP Client DHCP Snooping DHCP Relay DHCP Server DHCP Option82			
DNS	Static and Dynamic DNS IPV4 and IPV6			
Routing protocols	IPV4/IPV6 static routing RIP/RIPng, OSPFV1/V2/V3			
Storm suppression	Storm suppression based on port bandwidth percentage Storm suppression based on PPS			
Layer 2 ring network protocol	STP/RSTP/MSTP STP Root Protection Smart Link RRPP			
Mirroring	Flow mirroring Port mirroring			
QoS/ACL	Packet filter Flexible queue scheduling algorithms based on ports and queues, including SP, WRR and SP+WRR Bidirectional ACL Port-based speed limit Flow redirection Time-range			
Layer 2 ring network protocol	STP/RSTP/MSTP STP Root Protection Smart Link RRPP			
Security	Hierarchical user management and password protection MAC-based authentication 802.1X			

Item	S5560S-28P-SI	S5560S-52P-SI	S5560S-28S-SI	S5560S-52S-SI
	SSH2.0 Port isolation IP source guard HTTPs EAD			
Loading and upgrading	Loading and upgrading through FTP/TFTP			
Management and maintenance	Configuration from CLI Login through Telnet, and the console port Simple Network Management Protocol (SNMP) Remote Monitoring (RMON) IMC network management system WEB management System log Alarming based on severity IRF NTP Debugging information output Telnet-based remote maintenance NQA DLDP Virtual Cable Test			

Ordering Information:

Product ID	Product Description
LS-5560S-28P-SI-GL	H3C S5560S-28P-SI L2 Ethernet Switch with 24*10/100/1000BASE-T Ports and 4*1000BASE-X SFP Ports,(AC)
LS-5560S-52P-SI-GL	H3C S5560S-52P-SI L2 Ethernet Switch with 48*10/100/1000BASE-T Ports and 4*1000BASE-X SFP Ports,(AC)
LS-5560S-28S-SI-GL	H3C S5560S-28S-SI L2 Ethernet Switch with 24*10/100/1000BASE-T Ports and 4*1G/10G BASE-X SFP Plus Ports,(AC)
LS-5560S-52S-SI-GL	H3C S5560S-52S-SI L2 Ethernet Switch with 48*10/100/1000BASE-T Ports and 4*1G/10G BASE-X SFP Plus Ports,(AC)

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